UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,730	06/23/2003	Todd F. Pfleiger	MSFT-1743/303844.1	8726

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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/601,730	PFLEIGER ET AL.
	Examiner	Art Unit	
	Helene Rose	2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _26 September 2006_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-16_ is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-16_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _23 June 2003_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

1. In response to communication filed on 9/26/2006, Claims 1-16 are pending. Claims 1, 10, and 11

have been amended; No claims were added, nor cancelled.

2. Applicants arguments with respect to claims 1-16 in view of the cited references have been

considered but are moot in view of applicant's amended claims necessitate new ground(s) of

rejection

Claim Rejection – 35 USC 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or
> described as set forth in section 102 of this title, if the differences between the subject matter
> sought to be patented and the prior art are such that the subject matter as a whole would
> have been obvious at the time the invention was made to a person having ordinary skill in
> the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coden et al

(US Patent No. 5,873,080, Date of Patent: February 16, 1999) in view of Neal et al (US Patent No.

6,697,799, Date Filed: October 24, 2002).

Claims 1 and 11:

        Regarding claims 1 and 11, Coden teaches a method of distributing portions of a query over

two or more execution engines (Figures 1 and 2, all features and column 3, lines 49-51, wherein

query interface then distributes the queries to the appropriate search engines, Coden), the method

comprising:

        receiving an input query **into cascaded analysis engines** (column 3, lines 40-43, wherein a

user input a single query with more than one media type and combined query has a query data

structure which is submitted to a query interface, Coden);

Coden discloses receiving an input query. However, Coden does not disclose receiving an

input query **into cascaded analysis engine**. On the other hand, Neal discloses receiving an input

query **into cascaded analysis engine** (see abstract, wherein selecting a first attribute of the item,

designating a first search strategy comprising the value of the first attribute applied to operate upon

data records in a first database, selecting a second attribute of the item; designating a second

search strategy comprising the value of the second attribute applied to operate upon a second

subset of data records in a second database, forming a search hierarchy comprised of the first

search strategy followed by the second search strategy, executing the search hierarchy, and

selecting at least one classification for the item based on the search, wherein this is equivalent to

cascaded analysis engine and column 5, lines 43-44, wherein the input query to the search can be

a word, token or symbol or a group of words, tokens, or symbols respectively, Neal).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to

incorporate Neal teaching into Coden system. A skilled artisan would have been motivated to

combine as suggested by Neal [column 2, lines 26-36, respectively, Neal], in order to present

information tailored to both the user and the current location of the information. As a result,

establishing an improved method of providing information to individuals.

identifying with a first analysis, a portion of the input query that can be processed by a first

execution engine (column 3, lines 43-49, wherein the query interface stores the different parts of the

query and then parses the query to separate the query according to type into queries which are

understood by the application programming interface that is designed for a particular search engine,

Coden);

compiling the identified portion of the input query forming a first compiled portion (column 3,

lines 51-53, wherein the search of each query type is performed by the first appropriate search

engine(s) and each search engines return results which are underlined_converted to a collection of result

objects, wherein each result object comprises of a quartet of information which includes part

number, document number, rand, and search media type, Coden);

rewriting the input query to form a first rewritten query wherein the identified portion of the

input query is removed from the input query and replaced by a first placeholder (column 6, lines 51-

55, wherein the query interface provides any formatting necessary to make the query objects

compatible with the application program interface, wherein formatting is interpreted to be rewriting

and column 7, lines 52-55, wherein the converter takes al the result objects as inputs, also

interpreted to rewriting the input query, and creates a global result objects, wherein interpreted to be

the rewritten query; and columns 11 and 12, wherein after creating List3 using to determine which

result objects will remain in collection1 and collection2 and remove all result objects from collection1

and collection2 whose document number is not part of List3 and if the type of the Query List Item

determined is an operator, it gets added to the intermediate result structure and in the next step, and

the intermediate result structure gets updated in the following manner and if the last three elements

of the intermediate results structure are--in that order--opening parenthesis, collection of result

objects, closing parenthesis, remove these three elements and add the collection of result objects

back again to the intermediate result structure and if in step and it is determined that the last item in

the Query Item List has been processed, then the results list on the top of the stack is returned as

the Result and column 3, lines 55-57, wherein a global result object is created as a collection of all

the individual result objects, Coden);

passing the first rewritten query to a second analysis engine (column 6, lines 32-36, wherein

the query interface analyzes to determine the media type of the query object and search engine

suited to execute the query object and column 3, lines 51-53, wherein the search of each query type

is performed by the first appropriate search engine(s) and each search engines return results which

are converted to a collection of result objects and lines 57-58, wherein the global result is then

passed to the combiner, wherein the combiner is a collection of one or more algorithms that

operates on the global result object to produce a single result list, Coden);

identifying with the second analysis engine a portion of the first rewritten query that can be

processed by a second execution engine (column 3, lines 43-49, wherein the query interface stores

the different parts of the query and then parses the query to separate the query according to type

into queries which are understood by the application programming interface that is designed for a

particular search engine and lines 51-53, wherein the search of each query type is performed by the

first appropriate search engine(s) and each search engines return results which are converted to a

collection of result objects and line 55-57, wherein a global result object is <u>created</u> as a collection of

all the individual result objects, Coden); and

       compiling the identified portion of the first rewritten query generating a second compiled

portion wherein the input query is distributed over the first execution engine and the second

execution engine (column 6, lines 51-55, wherein the query interface translates each query object

into series of API calls to the respective engines, the query interface provides formatting necessary

to make the query objects compatible with API's and column 3, lines 49-51, wherein query interface

then distributes the queries to the appropriate search engines and lines 51-53, wherein the search of

each query type is performed by the first appropriate search engine(s) and each search engines

return results which are converted to a collection of result objects, Coden).

Claim 2:

      Regarding claim 2, the combination of Coden in view of Neal teaches rewriting the first

rewritten query to form a second rewritten query wherein the identified portion of the first rewritten

query is removed from the first rewritten query and replaced by a second placeholder (columns 11

and 12, wherein after creating List3 in the just described manner, use to determine which result

objects will remain in collection1 and collection2: and remove all result objects from collection1 and

collection2 whose document number is not part of List3 and if the type of the Query List Item

determined in step (630) is an operator, it gets added to the intermediate result structure and in the

next step, (660), the intermediate result structure gets updated in the following manner and if the last

three elements of the intermediate results structure are--in that order--opening parenthesis,

collection of result objects, closing parenthesis, remove these three elements and add the collection

of result objects back again to the intermediate result structure and if in step (610) it is determined

that the last item in the Query Item List has been processed, then the results list on the top of the
stack is returned as the Result, Coden).

Claim 3:

Regarding claim 3, the combination of Coden in view of Neal teaches wherein the rewriting
act further comprises wrapping the second compiled portion into the first compiled portion of the
input query (column 9, lines 11-29, Coden).

Claims 4 and 14:

Regarding claims 4 and 14, the combination of Coden in view of Neal teaches wherein the
first compiled portion and the second compiled portion may be executed over different data sources
(column 7, lines 5-13, wherein searches are executed by the search engines by accessing the
database of documents and/or parts and and/or associated metadata as appropriate is equivalent to
portions may be executed over different data sources, and so forth, Coden).

Claims 5 and 16:

Regarding claims 5 and 16, the combination of Coden in view of Neal teaches wherein a first
analysis engine is a structured query language based engine (column 6, lines 11-13, Coden) and a
second analysis engine (Refer to claim 1, wherein this limitation is substantially the same/or similar,
Coden).

Coden is silent with respect to extensible markup language based engine. However, Neal
discloses an extensible markup language based engine (column 3, lines 64-66, respectively, Neal).
It would have been obvious to one of the ordinary skill in the art at the time of the invention to
incorporate Neal teaching into Coden system. Coden and Neal are analogous art because they are
from the same field of endeavor of search engines.

A skilled artisan would have been motivated to combine as suggested by Neal at Figure 7,
all features, for a more efficient way of searching, navigating, manipulating and exchanging of data.

Claims 6 and 12:

Regarding claims 6 and 12, the combination of Coden in view of Neal teaches a method

further comprising:

executing partially the second compiled portion using the second execution engine forming

the combination of second interim results and the first placeholder (column 3, lines 34-39), wherein

the first placeholder remains an unexecuted part of the second compiled portion (column 2, lines 39-

44. Coden);

generating a call from the second execution engine to the first execution engine requesting

the data corresponding to the first placeholder (column 7, lines 8-20, Coden);

executing the first compiled portion using the first execution engine to form first interim

results corresponding to the first placeholder and satisfying the call (column 8, lines 23-31, wherein

the query operator object specified as part of the combined query is the AND operator, wherein this

implies that for a part to satisfy the query it has to satisfy the query for all specified query media

types, and a combined query could be performed for instance in the following fashion: execute the

parametric query and obtain its result, lets call it Rp 184, wherein Rp 184 is an input to the text query

object which specifies that only data in Rp should be searched to satisfy the text query, and wherein

the text query returns now result Rt, wherein RT is a subset of or equal to RP, Coden);

providing the first interim results to the second execution engine (column 8, lines 46-62,

Coden); and

substituting the first interim results for the first placeholder forming the combination of second

interim results and first interim results comprising combined input query results (columns 11-12, lines

51-67 and lines 3-14, wherein applying an operator between two collections of result objects,

wherein assuming an operator needs to be applied between collection 1 of results objects and

collection 2 of result objects, wherein determining the list of all different document numbers which

appear in collection1, i.e. List1, and do the same to collection2 of result objects resulting in List2,

apply the operator between List1 and List2 and create List3 of document numbers by applying the

operator between each item in List1 and each item in List2, and if the operator is AND, a document

number in List1 is a member of List3, if and only if it is also a member of List2 and If the operator is

OR, List3 is a union of the document numbers in List1 and List2 and after creating List3 in the just

described manner, use to determine which result objects will remain in collection1 and collection2

and remove all result objects from collection1 and collection2 whose document number is not part of

List3, and so forth, wherein L3 is your placeholder and column 10 lines 20-24, wherein based on the

two objects it produces a result list, Coden).

Claims 7, 9 and 13:

Regarding claims 7, 9, and 13, the combination of Coden in view of Neal teaches wherein

the first execution engine and the second execution engine operate on queries comprising different

data models (column 12, lines 17-25, Coden).

Claims 8 and 15:

Regarding claims 8 and 15, the combination of Coden in view of Neal teaches executing

partially the first compiled portion using the first execution engine forming first interim results

(REFER to claim 6, wherein this limitation has already been addressed, Coden);

generating a call from the first execution engine to the second execution engine requesting

the data corresponding to an unidentified portion of the input query (REFER to claim 6, wherein this

limitation has already been addressed, Coden);

executing the second compiled portion using the second execution engine to form second

interim results and satisfying the call (REFER to claim 6, wherein this limitation has already been

addressed, Coden).

providing the second interim results to the first execution engine (REFER to claim 6, wherein

this limitation has already been addressed, Coden); and

combining the first interim results with the second interim results to form combined input

query results (Figure 7, all features and column 12, lines 15-17, Coden).

Claim 10:

Regarding claim 10, the combination of Coden in view of Neal teaches a system for
distributive processing of an input query (REFER to claim 1, wherein this limitation has already been
addressed, Coden), the system comprising:

two or more **cascaded** analysis engines for separating out portions of the input query that
can be compiled and executed (column 7, lines 33-38 and column 11, lines 27-32, wherein a set of
items compiled from two different supplier catalogs, Neal));

two or more **cascaded** execution engines for operation on the input query (Table 5, wherein
defined in column15, and lines 55-60, wherein it illustrates wherein each row is for a different search,
and input attributes identifies the descriptive terms to be classified, Neal); and

access to one or more data sources, wherein the two or more analysis engines operate to
independently identify (REFER to claim 1, wherein this limitation has already been addressed and
column 7, lines 6-8, Coden) and compile one or more portions of the input query (REFER to claim 1,
wherein this limitation has already been addressed, Coden) wherein:

at least one of the two or more analysis engines rewrites the input query to remove the
portion of the input query that corresponds to an execution engine (REFER to claim 1, wherein this
limitation has already been addressed, Coden); and

the two or more execution engines process the one or more compiled portions of the input
query such that partial query results from one execution engine are passed to a subsequent
execution engine and combined to form overall input query results (see abstract, wherein the query
interface than passes the query objects to the appropriate application programming interfaces of the
various search engines; column 9, lines 11-18, wherein from the combined query window a user can
open windows that allow the user to input query specifications for each media type of query, wherein
in the combined query window the user can specify operators and or functions which should be
applied between the results of queries, wherein this step is interpreted to be combining to form

overall input query results, wherein the user can select that a query should satisfy all the specified query conditions, Coden).

Examiner Response

Applicant argues prior art fails to teach " a cascade of analysis engines"

Examiner is not persuaded, wherein applicant argues an **amended claim**. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a cascade of analysis engines) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant argues prior art fails to teach " rewriting the input query to form a first rewritten query wherein the identified portion of the input query is removed from the input query and replaced by a first placeholder and passing the first rewritten query to a second analysis engine in a **cascaded system of analysis engines"**

Examiner is not persuaded, wherein applicant argues an **amended claim**. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., rewriting the input query to form a first rewritten query wherein the identified portion of the input query is removed from the input query and replaced by a first placeholder and passing the first rewritten query to a second analysis engine in a **cascaded system of analysis engines**) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

However, Examiner is not persuaded, when referring to *"rewriting the input query to form a first rewritten query wherein the identified portion of the input query is removed from the input query and replaced by a first placeholder and passing the first rewritten query to a second analysis engine"*, as originally stated in the previous claim language. Referring to column 6, lines 51-55, wherein the query interface provides any formatting necessary to make the query objects compatible with the application program interface, wherein formatting is interpreted to be rewriting and column 7, lines 52-55, wherein the converter takes al the result objects as inputs, also interpreted to rewriting the input query, and creates a global result objects, wherein interpreted to be the rewritten query.

Prior Art Made of Record

(The prior art made of record and not relied upon is considered pertinent to applicant's disclosure)

1. Coden et al (US Patent No. 5,873,080) discloses a query comprising sub queries each of which could be different media type are used to search a collection of multimedia documents in a database.

2. Vlahos et al (US Publication No. 2002/0133504) discloses a distributed data processing system that may include an interface receiving a data processing request from a requesting entity, a processing server to provide access to local data processing applications, a shadow processing server to provide access to remote data processing applications, and an application server to fulfill the received data processing request by selectively accessing locally wherein and remote data processing applications transparently to the requesting entity.

3. Keith, JR. (US Publication No. 2002/0091686) discloses a method and apparatus for performing a research task within a searchable database by interchanging utilizing a multitude of search methodologies including keyword search, hierarchical search, and dichotomous key search.

4. Chang et al (US Publication No. 2004/0111401) discloses a method, system, and computer program for enabling parametric searches on source data using text search engine.

5. Neal et al. (US Publication No. 6,584,462) discloses an electronic catalog search engine is configurable to optimize the search process by identifying the desired item from the most advantageous supplier, while efficiently utilizing computing resources.

6. Neal et al. (US Patent No. 6697799) discloses an item to automatically be classified using its attributes based on a classification schema and a knowledge base.

7. Redfern et al (US Patent No. 6,078,914) discloses a meta search system accepts natural language queries which are parsed to extract relevant content, this relevant content being formed into queries suitable for each of a selected number of search engines and being transmitted thereto.

8. Katariya (US Patent No. 6,226,635) discloses a distributed software facility for tailoring an information retrieval query issued by a user based upon the position of that user within an organization of users.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.
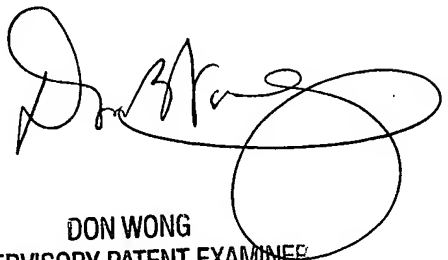
Point of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helene R. Rose whose telephone number is (571) 272-0749. The examiner can normally be reached on 8:00am - 4:30pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Helene R Rose
Technology Center 2100
November 30, 2006

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